### NOT: "Not on Tobacco" - A Teen Smoking cessation Program

Smoking among teens is associated with risks for suicide, stress, depression, violence, and high-risk sexual activity. Many want to quit, but few programs are available to help them. The Prevention Research Center at West Virginia University collaborated with youth, state and local health departments, the American Lung Association, and others to create a program called "Not on Tobacco" (NOT). Youth in focus groups told the research team what influences their decision to smoke. Using this information, the researchers designed a curriculum, trained facilitators, and pilot-tested the NOT program. The results: one-third of the young smokers who completed the program stopped smoking.

### Eliminating Health Disparities through Community Participation

The Hispanic residents of the San Luis Valley in Colorado have very high levels of diabetes, obesity, poor nutrition, and physical inactivity. In this program based at the University of Colorado School of Medicine, highly motivated members of the San Luis community are involved throughout the planning, implementation, and evaluation processes of a program to improve their own health. Researchers support their efforts by identifying the social networks that influence eating and physical activity patterns. Families themselves advise and mentor other families in learning how to promote healthful lifestyles. Together, researchers and the community are building an advocacy group and a community of people who practice healthful behaviors.

## 2. Career Development for Prevention Researchers

Having a sufficient number of well-trained and experienced researchers is essential to meet the need for conducting extramural prevention research. Both new and experienced researchers require opportunities to expand their skill base. To this end, CDC currently supports fellowships, scholarships, dissertation grants, research awards to new investigators, research training grants, and continuing education. Short-term placements at CDC are available for students and researchers. CDC also funds students' and researchers' participation in training and research projects in academic institutions throughout the country.

## 3. Collaborative Research to Answer Needs Related to CDC's Prevention Programs

CDC develops prevention materials and programs and helps health departments, industry, schools, and other organizations adapt them to meet their specific needs. Through close associations with these front-line public health workers, CDC identifies research issues that need immediate attention in one community or across the nation. CDC funds research that invites its partners to collaborate in resolving these issues. These collaborations take advantage of the combined strength and expertise of CDC and its partners. Partners include prevention researchers in universities, not-for-profit organizations, health departments, and in the private sector. Such research is known as collaborative or program-generated research. CDC establishes the topic area (for example, physical activity in children) and sometimes the specific issues to be addressed (for example, increasing opportunities for children to participate in physical activity in schools already dealing with full curricula and limited funding). In many cases, CDC and external partners work together actively on some or all stages of the project. In others, external partners undertake the majority of the work, while CDC provides oversight.

## 4. Investigator-Initiated Research

Researchers often dedicate significant portions of their career to intensive study of a few issues. Their detailed understanding of these issues and their working relationships with practitioners, and sometimes with the public, provide them with a unique ability to identify research needs. CDC therefore also funds investigator-initiated research in which prevention researchers external to CDC propose projects and methods, identify why projects deserve funding, and describe expected benefits.

Investigator-initiated projects may be submitted in response to specific calls in which CDC establishes a broad topic area (such as violence-related injury prevention research or prevention research related to mining safety and health) or a general research approach (such as community-based research). Sometimes investigators suggest topics entirely of their own choosing under open calls. In all of these, the setting of the research questions, and the design, conduct, and interpretation of the research is left up to the researcher. CDC often uses the process of external peer-review (review by expert researchers who are external to CDC) to help assure that the most timely, innovative, and rigorous proposals are selected. Within several years, all of CDC's extramural prevention research will undergo external peer-review.

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E-mail: LGreen@cdc.gov; Website: http://www.cdc.gov/phppo/eprp



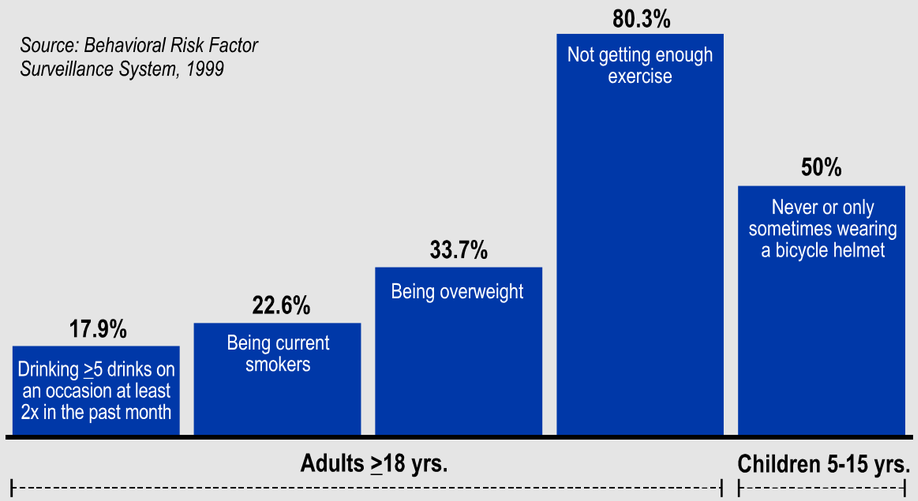
AT A GLANCE- 2002

# CDC/ATSDR's EXTRAMURAL PREVENTION RESEARCH INITIATIVE

## Translating Science into Action

### Americans Who are at Risk for Health Problems Related to:

*Source: Behavioral Risk Factor Surveillance System, 1999*




*"Prevention research has benefited every American adult, child and infant."*

William L. Roper, MD, MPH
Dean, School of Public Health,
University of North Carolina at Chapel Hill
Chair, Partnership for Prevention

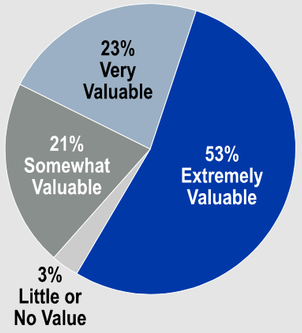
*"Our nation is looking to science now more than ever to find answers. Meanwhile, research is looking to protect our nation as never before."*

The Honorable Paul G. Rogers
Chair, Research!America

SAFER • HEALTHIER • PEOPLE™

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**
**CENTERS FOR DISEASE CONTROL AND PREVENTION**
**AND**
**AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY**

**Q:** *Thinking about the way you live your life and the activities you engage in, how much do you personally value health promotion and disease prevention?*




Source: Harris Interactive for Research!America's Prevention Research Initiative, Connecticut 2001

*"We would be terribly remiss if we did not seize the opportunity presented by health promotion and disease prevention research to dramatically cut health-care costs, to prevent the premature onset of disease and disability, and to help all Americans achieve healthier, more productive lives."*

Louis W. Sullivan, MD
President, The Morehouse School of Medicine

## ASSURING THAT SCIENTIFIC KNOWLEDGE LEADS TO IMPROVED HEALTH

Extramural prevention research programs at the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) take the results of laboratory and clinical research and make them relevant for diverse communities. This saves lives, increases quality of life, and reduces health care costs. Most of our nation's leading causes of death, disease, disability and injury–things such as cancer, heart disease, asthma, suicide, and motor vehicle accidents–are strongly affected by behavior, lifestyle, and the environment. Prevention research seeks to prevent disease, disability and injury from occurring, and to find health problems early and lessen their effects. This leads to the development of effective disease prevention and health promotion programs and policies that can have significant benefits for individuals and communities. Prevention research involves: (1) Identifying factors that put people at greater risk of disease, disability, and injury; (2) Designing, testing, and evaluating approaches to help individuals and communities adopt and maintain healthful behaviors and otherwise reduce their risk; (3) Determining how to best provide information about successful approaches to practitioners, policy makers and the public in ways that meet their specific needs; and (4) Learning how to translate research findings into effective real-world prevention programs and policies.

## BRIDGING THE GAP BETWEEN BETWEEN RESEARCH AND PRACTICE

Each year, federally funded agencies such as the CDC, ATSDR, and the National Institutes of Health (NIH) conduct a wide range of research that has the potential to improve the public's health. However, less effort has been spent on learning how to most efficiently and effectively apply the results of such research to the practice of medicine and public health. Practitioners, policy makers and communities may not see how research results and guidelines developed in far away places, using populations different from their own, are appropriate and affordable for their own community.

Making the transition from research to practice is as important as conducting the initial research itself. It is the transition that guarantees the results will benefit the public. If the research findings are not used, the research might as well not have been done. Our nation's great financial investment in health research can therefore have much larger returns by using the strengths of prevention research. These strengths include methods for ensuring that research findings are available to practitioners, policy makers and the public in ways that meet their specific needs.

## CDC/ATSDR's UNIQUE ROLE

Biomedical and applied research at the NIH identifies mechanisms of disease and tools f h as vaccines and cancer screening tests. Yet such tools will be of limited usefulness if practitioners do not know how to use them and if the general public does not accept them. Prevention research provides the bridge to practice. It does this by exploring how these scientific discoveries can be made effective for and acceptable to diverse communities. CDC is uniquely qualified to coordinate this type of research because of two key factors: (1) Its mandate as the nation's prevention agency, which involves conducting research and providing service to communities across the nation; and (2) The close working relationships and partnerships it has established with schools of public health and medicine, state and local health departments, community-based and not-for-profit organizations, schools that teach our nation's children, industry, and the private sector.





This model of making laboratory research relevant for diverse communities is being used to ensure that the citizens of e access to an effective and acceptable anthrax vaccine. The Department of Defense and others participated in funding the bench and laboratory research that led to the discovery and refinement of the anthrax vaccine. CDC plays an integral role in collaborating in and funding studies to determine whether the anthrax vaccine is consistently useful and acceptable–both to the American public as a whole, and also to such groups as pregnant women, cancer patients whose immune systems are weak, and people who are concerned about possible side effects.

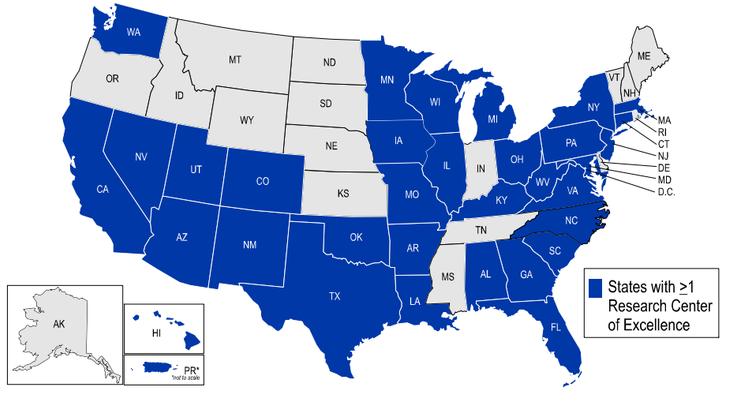
Large research investments have also been made to help us understand and control such health problems as heart disease, diabetes, asthma, and unintentional injuries. Yet programs in most communities have had limited success in preventing or controlling these problems. The challenges to CDC and its partners are to identify successful strategies and to disseminate and translate research findings about these strategies in ways that lead to greater success in real-world programs.

## MEETING THE NEEDS OF OUR NATION'S COMMUNITIES

CDC has developed intramural and extramural approaches to prevention research. **Intramural prevention research** refers to prevention research that is conducted entirely by CDC researchers. **Extramural prevention research** includes research that is funded by CDC but carried out by researchers external to CDC as well as research carried out by external and CDC researchers working in collaboration. CDC's Extramural Prevention Research activities can be divided into four key areas.

### 1. Research Centers of Excellence

CDC provides core funding to universities and other institutions to establish research centers of excellence in specific topic areas. These areas include injury control and violence prevention, birth defects, genetics, agricultural health, occupational safety and health, urban health, public health law, prevention and control of chronic diseases, and health statistics. Each center addresses one specific topic area and has a particular focus on that topic that makes a unique contribution to the public health needs of its local region. Together, these centers of excellence provide an extensive, nation-wide network and infrastructure of prevention research expertise and experience. This network can be mobilized efficiently and effectively to identify and address prevention research needs. Centers usually re-compete for funds every three to five years to ensure that they continue to conduct cutting-edge research of relevance to their regions and to the nation.




### New Vaccine for Infants and Toddlers: Implementation and Impact

It's not enough to develop new vaccines; health care professionals need to use them, and families need to accept them. At Harvard Pilgrim Health Care in Massachusetts, CDC-funded researchers are finding ways to introduce a pneumococcal conjugate vaccine for infants and toddlers into routine preventive health care. This vaccine builds resistance against such diseases as pneumonia, earaches, meningitis, bronchitis and conjunctivitis. Researchers are studying how practitioners adapt to the vaccine and how parents accept it. The results of this research will help health policy makers decide how best to put the pneumococcal conjugate vaccine and future new vaccines to work.

**Research Centers of Excellence with Core Funding from CDC**

| Type of Center | # of Centers |
|---|---|
| Agricultural Health Research Centers | 10 |
| Center for Law and the Public's Health | 1 |
| Centers for Birth Defects Research and Prevention | 8 |
| Centers of Excellence in Health Statistics | 3 |
| Centers for Genomics and Public Health | 3 |
| Injury Control and Violence Research Centers | 24 |
| Occupational Safety and Health Education Research Centers | 16 |
| Prevention Research Centers | 26 |
| Urban Research Centers | 3 |